

**REMARKS****Summary of the Office Action**

Claims 1-4, 6-7, 11-17, and 25-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yorikatsu et al. (U.S. Patent No. 3,658,713) (hereinafter "*Yorikatsu*") in view of Tsutomu et al. (Japanese Patent Application 06-231727) (hereinafter "*Tsutomu*").

Claims 5 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Yorikatsu* in view of *Tsutomu* and further in view of Suzuki (Japanese Patent Application 55-078436) (hereinafter "*Suzuki*").

Claims 8-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Yorikatsu* in view of *Tsutomu* and further in view of Suyama et al. (U.S. Patent No. 6,198,221) (hereinafter "*Suyama*").

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Yorikatsu* in view of *Tsutomu* and *Suzuki* and further in view of *Suyama*.

Claims 18, 20-22, and 29-31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Yorikatsu* in view of *Tsutomu* and further in view of Bradley (U.S. Patent No. 3,761,614) (hereinafter "*Bradley*").

Claim 19 and 32-34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Yorikatsu* in view of *Tsutomu* and further in view of *Bradley* and further in view of *Suzuki*.

Claim 24 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Yorikatsu* in view of *Tsutomu* and in view of *Suzuki* and further in view of *Bradley*.

**Summary of the Response to the Office Action**

Applicant has amended claims 1-14, 16.

Applicant has canceled claims 15, 17, and 25-34 without prejudice or disclaimer.

Applicant has added new claim 35.

Claims 1-14, 16, 18-24, and 35 are pending.

**All Claims Define Allowable Subject Matter**

Applicants amend claims 1-13 to change from a device claims to method claims, similar to original method claims 25-34, which are canceled. In addition, since the wording "alkali metal generating device" of claim 6 is introduced into claim 1, claims 15 and 17 are also canceled.

The amendments to claim 1 are supported, at least, for example, by paragraphs [0111]-[0117] of this specification. Particularly, claim 1 recites "guiding the alkali metal vapor generated from the heated alkali metal generating device, while controlling a temperature of the container, to an area where the layer is formed." Such a claim feature is supported by paragraph [0129] of this specification. Because the claimed alkali metal generating device using vanadate makes the alkali metal vapor generate stably, the deposition state of alkali metal becomes uniform in an area where a photocathode or a secondary electron emitting surface should be formed. In other words, in an area where a photocathode or a secondary electron emitting surface should be formed, the claimed invention can achieve a uniform deposition state of alkali metal by the combination of a stable generation control for the alkali metal vapor and a temperature control for the container.

As can be seen from the cited references, although an alkali metal generating agent using chromate may be known, the references fail to teach or suggest an alkali metal generating agent using vanadate. Furthermore, as indicated in paragraph [0011] of the specification, in a conventional method of producing a photo-cathode and the like, it is generally considered impossible to prevent the deposition state of alkali metal from becoming nonuniform, because of a quick reaction of chromate. That is, even if the agent of *Yorikatsu* is combined with the material of *Tsutomu*, the method as claimed in the amended claim 1 will not be achieved.

In addition, as can be seen from Fig. 9 of this specification, the alkali metal generating device is set outside the container. However, the position where the alkali metal generating device can be directly set can also be inside the container (see Fig. 10, paragraph [0123] of the specification). New claim 35 is presented based on the embodiment where the space, in which the alkali metal generating device is set, constitutes part of the inner space of the container.

With regard to the additionally applied references to various dependent claims, as summarized previously, Applicants respectfully submit that these additionally applied references do not cure the deficiencies discussed previously with regard to *Yorikatsu* and *Tsutomu*. Accordingly, Applicants respectfully submit that for at least the above reasons, independent claim 1 should be allowable over the cited references, and dependent claims 2-14, 16, 18-24, and 35 should be allowable at least because of their dependence from independent claim 1, and the reasons discussed previously.

**CONCLUSION**

In view of the foregoing, Applicants respectfully request reconsideration and the timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response; the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution.

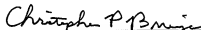
**EXCEPT** for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. § 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0573. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a) (3).

Respectfully submitted,

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